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Iowa Academy of Science

Fall 2008


Iowa Academy of Science: The New Bulletin, V4n3, Autumn 2008

Iowa Academy of Science

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Iowa Academy of Science

The New Bulletin

Volume 4 Number 3 Autumn 2008



The Iowa Academy of Science is established to further scientific research and its dissemination, education in the sciences, public understanding of science, and recognition of excellence in these endeavors.

Message from the Executive Director

Dear Members,

Hello from the Iowa Academy of Science. This issue of the New Bulletin is full of information about how your Academy is advancing science in Iowa and what is planned for the future.

Please notice whether or not your institution or business is displaying an Academy poster. If not please request a poster from the Academy office. If the brochure pocket in your poster is nearly empty request more brochures from our office. If your institution is not listed as a member on page 8 please contact the IAS office about how to recruit them.

Look for a full-color membership brochure in the fall mailing that you will receive in October. The brochure will be included for you to present to a colleague to promote the Academy. We have more, so don't be shy about asking the IAS office to provide you with as many as you need. Encouraging your colleagues to join is one of the most significant efforts you can make for the Academy. You will receive \$10 off next year's dues for each new professional member you recruit (up to 6).

A thank you goes to Neil Bernstein, Lyn Countryman, and Dennis Schlict for reviewing the applications for the Myrle Burke Scholarship this year. The awardees are Torre James Hovick, Daniel T. Mohn, Rebecca Parsons, and Jessica Slavik. All are students at Iowa State University and each received \$750. We are taking applications for the 2009 awards.

The Academy is streamlining the process of applying for Iowa Science Foundation grants and is also clarifying the guidelines. One major change will be the opportunity to electronically submit proposals. Changes in the guidelines will clarify what will be funded by ISF grants. Look for these changes to be updated on the Academy website this fall.

We are working on a demonstration website for the "I Wonder" program. This is the next step before development of the full program can begin. How did your interest in science begin? For many of us there was a trigger, a curiosity that was encouraged by positive experiences. "I Wonder" will help families, schools, and other organizations create those positive experiences for children here in Iowa.

Please read through this Bulletin to learn much more about Academy efforts. We hope you like what you see. As always, feel free to contact us if you have questions or comments. On behalf of Marcy, Toni, and our student workers Emily and Hailey, have a wonderful fall season.

Craig Johnson
Executive Director



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A Message from your President

It's both late and early for this message. This is a late invitation to some, a late reminder to others, to register for and attend the Iowa Science Teachers Fall Conference in Des Moines on October 23. This is only a few weeks away, and I encourage my higher education colleagues to consider joining the teachers who have prepared our students for this day of professional development and networking. The teachers of future teachers, future scientists and professionals, and future academy members (!) are an important part of the Academy.



This is an early invitation to the IAS Annual Meeting next April, which will also be held in Des Moines. Please consider a poster presentation or a paper presentation as well as participation in a symposium. The call for papers will be upon us sooner than we realize. And it would be great to have K-12 teachers joins us, if not on Friday, then on Saturday morning. The Science Teaching Section does have presentations on Saturday morning and many of the research presentations provide ideas and Iowa content for teaching.

Let's make the IAS ONE Academy! As your presidents, Lyn, Erica and I look forward to a very, very busy, yet exciting year for the Iowa Academy of Science.

Comments from the IAS Leadership

Let's make the number "8" a meaningful year – as in 2008. On behalf of the current Academy leadership team I would like to encourage the membership to participate in continuing the rebirth of the IAS in the 21st century. The past three to four years have been a time of incremental movement forward and the Academy is poised for making more substantive changes to increase our viability and vitality as we look towards the second decade of this century. Many things are on the agenda for the Board of Directors this fall, so many that in fact we are planning a full day retreat in addition to our usual Fall Board Meeting.

As your IAS President this year I am encouraging a campaign of "revitalizing the IAS". Emphases within this campaign include: a) greatly increased committee activity by ALL committees, b) reframing the membership dues time line, c) fiscal and fund raising planning, and d) increased membership in all areas. All of this will be reflected in a new Strategic Plan for the IAS to be shared with you prior to the Annual Meeting at Des Moines University.

Emphasis "a" is where many of you are important. Our organization is only as strong as our weakest links. Paying your membership dues and reading newsletters are great, but those are weak links. One of the strengths of the Academy lies in its committees. A high activity level of committee work is of paramount importance in enabling the Academy to be a viable 21st Century organization. We have 8 committees with a total of 48 members. Each committee has been issued a charge and the Committee Chairs and the Board of Director liaisons will push the committees to pursue those agendas. Involvement does not stop there. Committees will be reaching out to other Academy members too.

Allow me to revisit my remarks at the Spring Meeting at Kirkwood. The Iowa Academy of Science has been:

- looking back or looking inward
- addressing current issues, sometimes in a crisis mode
- catching up and bringing the Academy to the doorstep of the 21st century

But WE are 8 years into the 21st century! Where WE need to be is:

- forward looking
- stretching ourselves
- increasing our visibility in the state of Iowa
- becoming more active

The personal pronoun WE is obvious because WE are at a juncture, a crossroads of sorts, the past and the present versus the future. WE can expand, increase membership, financial base, and ultimately our staff and involvement level OR we can continue as an Academy that has 2 successful meetings per year with a modest staff and some volunteers. The direction of the IAS is up to YOU.

Replace with ISTS Page???

Plan ahead—Present at IAS

**121st Annual Meeting of the Iowa Academy of Science
Des Moines University, April 17-18th 2009**

All Sciences Welcome!

**IAS will be accepting abstracts from
November 1, 2008 to February 9, 2009**

IAS Members submit by:

- logging into the IAS Members' Website (www.iacad.org)
- completing the Abstract Submission Form

Non-members submit by:

- visiting <http://www.iacad.org/>
- logging into the Members' Website as a guest
(username and password = guest)
- completing the Abstract Submission Form

2008-2009 IAS Section Chairs

Anthropology

Cellular, Molecular & Microbiology

Chemistry

Community College Biologists

Ecology and Conservation

Engineering

Environmental Science & Health

Geology

Iowa Science Teaching

Organismal Biology

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Physiology and Health Sciences

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National Congress on Science Education Report to IAS

The Iowa Academy of Science is the Iowa chapter of the National Science Teachers Association (NSTA) which financially supports the National Congress on Science Education (NCSE). NCSE developed two new resolutions for 2008:

7/08CNG9: Be it resolved that the National Congress on Science Education advocate the selection of non print-based science curriculum materials that are current, global, and technologically accessible.

7/08CNG15: Be it resolved that the National Congress on Science Education promotes Professional Learning Communities (PLC) as a model of high quality professional development to improve student achievement and support highly effective teaching practices in science.

These statements are for your information. No action by the Academy or individual Academy members is required.



One Donation To Help Two Great Causes

You can support the Iowa Academy of Science and Iowa Public Radio with one donation. The Iowa Academy of Science has created the IAS National Wildlife Refuge Audio Series website at www.scienceiniowa.org. Please visit this website to learn more about the project and see how the Academy and many members volunteered their time and expertise to develop it. The project was funded in part by a grant from the National Fish and Wildlife Foundation and helps advance the public understanding of science.

To promote the site to the public we would like to air announcements on Iowa Public Radio. We would like to run announcements for one month at a cost of \$850. If you would like to make a tax deductible contribution please contact the IAS office. All funds directed to this cause will be used to promote the Academy on Iowa Public Radio Stations. To date we have received donations of \$250. This promotion will coincide with press releases to print and electronic media. Help the Academy make this project a success and reach Iowa families with scientific information about Iowa's wild places.

Volume 114 (2007) of the Journal of the Iowa Academy of Science will be available soon. It will be published as one issue because this is the most efficient and cost effective way of catching up with the back issues. It is our intent to return to printing at least 2 issues per year. To submit a manuscript go to the IAS website at www.iacad.org.

Iowa Junior Academy of Science Celebrating 75 Years of Service

The Iowa Junior Academy of Science was founded by IAS in 1932. The purpose of the Junior Academy has always been to support tomorrow's scientists and scientifically literate citizens by encouraging schools to develop science clubs and other special science programs. IJAS members can receive feedback and mentoring on their science fair projects and learn about the opportunities open to them through the Science Teachers And Research Students (STARS) Manual. They are also welcomed into Iowa's scientific community during the Iowa Academy of Science Annual Meeting.

In the last 10 years alone, IJAS has provided funding for hundreds of science fair projects through Starr Student Research Grants and given away \$10,000 in college scholarships to high school seniors.

The need for scientific and technically literate citizens is only growing! You can help make the next 75 years of IJAS as successful as the last by making sure your local middle and high schools are members of IJAS, volunteering to mentor a student, joining the Student Programs Committee or judging at the IAS Annual Meeting!



**Iowa Junior Academy
of Science**

Wiki-Handbook

You are invited to Wiki with IJAS!

Science Fair success is dependant on more than a good project. Students must organize and plan ahead. The IJAS Wiki-handbook puts all IJAS student members one click away from all the information they need to participate in Iowa science fairs, contests, and grant programs. IJAS students can communicate with the Student Programs Committee Members and gain early feedback on their research ideas. They can also share ideas and information with each other. The IJAS Wiki-Handbook has a whole new look for 2008-09 and open access to some pages for anyone! But be warned, to gain access to the really good stuff you have to join IJAS or volunteer to help!

Dr. Jay Labov to Speak at IAS Annual Meeting

Dr. Jay Labov, a Senior Advisor for Education and Communication for the National Academy of Sciences (NAS) and the National Research Council (NRC) will speak at the IAS Annual Meeting April 17-18, 2009, at Des Moines University. Dr. Labov has been the study director and responsible staff officer for ten NRC reports focusing on many aspects of STEM education including teacher education, advanced study for high school students, and evaluating and improving undergraduate education. He has served as Director of the NRC's Standing Committees on Undergraduate Science Education, Science Education K-12, and the National Academies' Teacher Advisory Council, and Deputy Director for the NRC's Center for Education. He was the co-Principal Investigator for a multiyear grant from the National Science Foundation to offer workshops to grantees of the NSF's Math/Science Partnership Initiative to enable them to better understand and implement the recommendations in NRC reports and other research literature on their own work.



Dr. Labov also directed a committee of the NAS and the Institute of Medicine that authored *Science, Evolution, and Creationism* (2008) and continues to oversee efforts at the NAS to confront challenges to teaching of evolution in the nation's public schools. He oversees a recently expanded effort of the National Academies to work more closely with disciplinary and professional societies and with state and regional academies of science on education issues.

Please plan to attend April 17-18, 2009, at Des Moines University.



Recognizing Great Science

It's time to recognize Iowa's distinguished scientists. The IAS Distinguished Awards Program recognizes the best contributions of Iowans to science research, science education, and service to science. IAS members are invited to send nominations for the awards to the IAS Recognition and Awards Committee. The Academy office will accept your nominations through the first **Friday in February**. Award honors will be announced at the IAS Annual Meeting, April 17-18, 2009, at Des Moines University.

The Distinguished Fellow Award is the highest honor the Academy can bestow upon an individual, and is intended to recognize exceptional scholarly activity and/or exceptional service to the scientific community at national and international levels. Although the individual need not be a current resident of Iowa, his/her background and accomplishments should, in some manner, relate to Iowa. Distinguished Fellows receive life membership in the Academy.

The Distinguished Service Award is presented to an individual, group, or organization for exceptional service in the areas of science, technology, or the application of science to public service. Contributions recognized by this award need not be in the form of research. To be considered, an organization or individual must be one whose scientific service or location is closely related to Iowa.

The Distinguished Iowa Scientist Award is intended for an individual deserving recognition within his or her own area of science and whose accomplishments have state-wide recognition by members of Iowa's scientific community. The award is made primarily on the basis of exceptional scientific research and scholarly activity. In most instances, this individual would be a resident of Iowa.

The Distinguished Iowa Science Teaching Award is intended to acknowledge, honor, and promote meritorious undergraduate collegiate science teaching. Exceptional and innovative teaching is recognized for those whose teaching is at an Iowa college or university. Eligible disciplines include all sciences, mathematics, and the science-based technical disciplines. Letters of support from three current or former students of the nominee are required for nomination.

Visit the IAS Website (www.iacad.org) Recognizing Great Science section for more information.

2008 Iowa Academy of Science Speakers Series

Visitor Center, Saylorville Reservoir

October 18 -

Sea Turtles of Georgia; Perspective from the Prairies of Iowa

Gale Bishop, Emeritus Professor of Geology, Georgia Southern University

The Iowa Academy of Science Speakers Series at the Visitor Center, Saylorville Reservoir is sponsored by the Iowa Academy of Science in partnership with the Army Corps of Engineers, Rock Island District.

The Iowa Academy of Science Speaker Series at the Saylorville Visitor Center will be wrapping up on October 18th with a presentation by Gale Bishop, Emeritus Professor of Geology, Georgia Southern University. Her presentation is, “Sea Turtles of Georgia; Perspective from the Prairies of Iowa.”

We would like to continue this program next year and are also interested in trying similar programs in other parts of the state. We have had mixed success with attendance at Saylorville and we are looking at ways to improve it next year. It's worth the effort to find ways to reach the public. Thanks to the IAS members who donated their time and efforts. A complete listing of the presentations is on our website at www.iacad.org.

Recognizing Great Science Teaching

Excellence in Science Teaching Awards (ESTA)

Outstanding teachers of all grade levels and areas of science have been recognized for their work and innovations in science education by the ESTA Award. Nominations are encouraged from administrators, colleagues, or a teacher may self-nominate. Selections are made by a committee of IAS members. Winners are honored at a luncheon during the Iowa Academy of Science Annual Meeting. Awardees receive a plaque and a \$200 award.

Nominations are accepted in the following categories:

- Physical Science (physics, chemistry, and physical science)
- Life Science (biology, anatomy/physiology, life science)
- Earth/Space Science/Environmental Science
- General/Multiple Science (integrated science, interdisciplinary courses, multiple preps)
- Middle School/Junior High Science
- Elementary Science (two awards may be given/year)

This is an opportunity to recognize science excellence in Iowa. The deadline for nominations is **January 31st**. Don't wait until the last minute. Please consider nominating someone today. All nominations should be sent to the Iowa Academy of Science office. More information and nomination forms are available on the IAS website at www.iacad.org. Click on 'Recognizing Great Science' and follow the links.



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Article Submission: The deadline for submission of articles for Vol. 4 #4 is December 1, 2008. Articles must be pre-approved. For more information contact Craig Johnson, IAS Executive Director, at craig.johnson@uni.edu

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